

Supplemental Table 1. PSMA-targeted radiotracers and select reports						
Agent	Target	Agent Type	Image type	Author – year	Setting	n
¹¹¹ In-7E11-C5.3 (Prostascint®)	Intracellular epitope	Antibody	SPECT	Hinkle – 1998	Localized	51
¹¹¹ In-J591	Extracellular epitope	Antibody	SPECT	Villabhoshula – 2005	Metastatic	64
⁸⁹ Zr-J591	Extracellular epitope	Antibody	PET	Osborne – 2014	Localized	11
⁸⁹ Zr-huJ591	Extracellular epitope	Antibody	PET	Pandit-Taskar – 2014	Metastatic	10
⁸⁹ Zr-Df-IAB2M minibody	Extracellular epitope	Minibody	PET	Pandit-Taskar – 2016	Metastatic	18
¹²³ I-MIP-1072, ¹²³ I-MIP-1095	Extracellular epitope	Small molecule	SPECT	Barrett – 2013	Localized & Metastatic	7
⁹⁹ Tc-MIP-1404 / ⁹⁹ Tc-MIP-1405	Extracellular epitope	Small molecule	SPECT	Villabhoshula – 2014	Metastatic	6
¹⁸ F-DCFBC	Extracellular epitope	Small molecule	PET	Rowe – 2015 / Cho – 2016	Localized & Metastatic	13 / 5
¹⁸ F-DCFPyL	Extracellular epitope	Small molecule	PET	Szabo – 2015 / Rowe – 2016	Metastatic	9 / 9
¹⁸ F-PSMA-1007	Extracellular epitope	Small molecule	PET	Giesel – 2016	Metastatic	1
⁶⁸ Ga-PSMA-HBED-CC (⁶⁸ Ga-PSMA-11)	Extracellular epitope	Small molecule	PET	Afshar-Oromieh – 2012 / Afshar-Oromieh – 2014 / Eiber – 2015 / Maurer – 2016	Localized & Recurrent & Metastatic	N.A.
⁶⁸ Ga-PSMA-617	Extracellular epitope	Small molecule	PET	Afshar-Oromieh – 2015	Recurrence	19
⁶⁸ Ga-PSMA-I&T (EuK-Sub-kf-iodo-y-DOTAGA)	Extracellular epitope	Small molecule	PET	Schmuck – 2017	Primary	20
hrs. – hours; N.A. – not applicable given the large number of studies of this agent; sens. – sensitivity						

Supplemental Table 2. Recently completed and actively recruiting clinical trials of PSMA-targeted therapeutic agents for mCRPC*

ClinicalTrials.gov Identifier	Agent	Agent Class	Design	Eligibility	Planned n	Status	Primary Outcomes
NCT01695044	PSMA ADC	Antibody-docetaxel conjugate	Phase 2	taxane-naïve or taxane-exposed	119	Completed	PSA, CTC, and radiologic response
NCT01414283	PSMA ADC	Antibody-docetaxel conjugate	Phase 1, dose escalation	taxane-exposed	52	Completed	Maximum tolerated dose
NCT03042312	¹⁷⁷ Lu-PSMA-617	Radioligand therapy	Phase 2, open label, 2-arm	taxane-naïve or taxane-exposed	200	Recruiting	Adverse events, PSA response, progression-free survival
NCT03042468	¹⁷⁷ Lu-PSMA-617	Radioligand therapy	Phase 1, dose escalation	taxane-exposed	46	Recruiting	Maximum tolerated dose
NCT01140373	Engineered autologous T-cells	Engineered autologous T-cells	Phase 1	taxane-naïve or after 1 taxane	18	Recruiting	Dose limiting toxicity
NCT03089203	CAR T-cells	CART T-cells +/- cyclophosphamide	Phase 1, 3 arm sequential assignment	taxane-naïve or taxane-exposed	18	Recruiting	Adverse events, radiologic and PSA response
NCT02202447	EC1169	PSMA-targeted tubulin inhibitor	Phase 1	taxane-exposed	40	Recruiting	Maximum tolerated dose
NCT02552394	huJ591	Monoclonal antibody	Phase 1	taxane-naïve or taxane-exposed	24	Recruiting	Decrease in CTC count

*as listed ClinicalTrials.gov (accessed 5/23/17), accessed via search of “PSMA”, only trials “completed” or “recruiting” are listed
 ADC – antibody drug conjugate; CTC – circulating tumor cells; mCRPC – metastatic castrate resistant prostate cancer; PSA – prostate specific antigen